

The international business guide to public-private partnerships and infrastructure finance, since 1988.

# PUBLIC WORKS FINANCING™

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## ■ DOT's LaHood Redirects TIFIA Loans to Green Projects

The U.S. Department of Transportation announced a new competitive process Dec. 3 for deciding which projects will be awarded TIFIA loans, sparking confusion and concern among some would-be borrowers. The changes reflect two new realities: demand for assistance from TIFIA (Transportation Infrastructure Finance and Innovation Act) far outstrips the program's budget, and a shift toward greener transportation goals under President Barack Obama.

Only two projects with reserved funding and near-term closing dates are exempt from starting the application process over, says Duane Callender, director of the TIFIA Joint Program Office. Everyone else must submit new or restated Letters of Interest that address livability, sustainability and other objectives of the new Obama administration. The letters had been due Dec. 31 to be considered during the FY 2010 funding cycle, but an extension is expected. The department intends to hold a "listening session" with stakeholders early next year.

"There's clearly going to be a focus on what potentially might be a different mix of projects," Callender said at a Dec. 15 conference of the International Bridge, Tunnel and Turnpike Association. "A lot of the projects that TIFIA has had to date are toll road projects . . . and we're moving more toward more analysis of social costs . . . more toward projects that are not as easily financeable."

The notice also proposed a pilot program to allow borrowers to pay the entire subsidy cost of credit assistance. This would allow projects that didn't rank high enough for subsidies to still receive TIFIA's low-interest loans with attractive terms, including being subordinate to senior debt. Two projects so far have paid part of the subsidy cost. Comments were due Dec. 31, but that deadline was also to be extended.

The Dec. 3 notice does not change the eight selection criteria set by Congress under TIFIA or the relative weights for the criteria subsequently established by regulation. However, "clarifying language" indicates how DOT intends to interpret existing rules.

The standard of national or regional significance will be interpreted to include livability, or linking transportation with housing and commercial development to improve economic opportunity and quality of life. The criteria of maintaining or protecting the environment will include a look at sustainability or improving energy efficiency and reducing greenhouse gases and dependence on oil.

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munities through sustainable surface transportation programs," says DOT Secretary Ray LaHood in his official blog.

No clarification was added to the criteria that credit assistance foster innovative public-private partnerships and attract private debt or equity. However, LaHood has also extolled the benefits of leveraging limited public dollars with private investment. Other less heavily weighted criteria include creditworthiness, the likelihood of proceeding earlier with TIFIA assistance, and use of new technologies. According to the notice, DOT will consider creditworthiness at the application stage, not during reviews of the letters of interest.

### CONFUSION SPREADS

The North Texas Toll Authority (NTTA) must decide by February whether it is going to finance the SH 161 project or turn it over to the state for possible private development, under a process set by state lawmakers.

The NTTA has been willing to pay the entire subsidy cost for a TIFIA loan, says Chairman Paul Wageman. He says the agency is waiting to see if its existing application can be considered separately from the new review process. "We need to know if we're in or out," Wageman says.

The North Carolina Turnpike Authority anticipates using TIFIA loans for three near-term toll projects, says Executive Director David Joyner. One of the projects, the Mid-Currituck Bridge, is moving forward under P3 pre-development agreement with ACS Infrastructure. Joyner worries that there won't be time, or money, to modify projects

already in the works.

"It's very difficult to go in one direction, and change gears and go in another direction due to policy changes of the new administration," Joyner says. "Give us some time to figure out how we can comply and still maintain our schedule."

Callender said the selection process will develop as the letters are submitted and it becomes clearer how much money is available to subsidize the cost of loans. Applications

had been accepted on a first-come, first-served basis. But since 2008, there have been more projects in the pipeline than available funding.

The TIFIA office does not know yet how much money it will have for projects in 2010 or further in the future, because Congress has not yet passed a long-term reauthorization of transportation programs. On Dec. 19, Congress passed a two-month extension of existing highway and transit programs, to Feb. 28, 2010.

If the TIFIA program ultimately is authorized for FY 2010 in the same amount as previous years—about \$122 million—there will be some money left after loans close for the two projects with prior commitments—The TransBay Terminal in California and the I-635/LBJ managed lanes project in Texas.

The good news: The FY 2010 consolidated appropriations bill signed by President Obama Dec. 16, HR 3288, includes an additional \$600 million in competitive grants for "national infrastructure investments." Secretary LaHood may use up to \$150 million of that money for TIFIA.

That's very similar to the current \$1.5 billion discretionary grant program—part of the stimulus bill—that allows the secretary to use up to \$200 million for TIFIA. Applicants for TIFIA loans under the TIGER (Transportation Investment Generating Economic Recovery) program are going through a different process and do not need to submit new letters of interest, Callender says. However, they may submit letters anyway to get a shot at regular TIFIA assistance if unsuccessful in

getting a TIGER TIFIA loan. TIGER awards are to be announced by Feb. 17.

## ■ California “Public Option” Toll Law OK’d

In what one toll road developer called a “stealth bill,” Gov. Arnold Schwarzenegger recently signed AB 798 which creates a new state authority that can issue revenue bonds on behalf of a variety of public transportation agencies to build tolled transportation facilities.

In a key provision, the law also eliminates the need for public sponsors to get legislative approval for each project.

The only political approval required would be a majority vote by the board of the agency authorizing the imposition of tolling, or majority approval of the voters in its jurisdiction. Eligible projects include highways, streets, rail, bus or related facilities owned and operated by Caltrans or other project sponsors.

The “public option” bill was sponsored by state treasurer Bill Lockyer, a long-time opponent of toll roads and public-private partnerships. “AB 798 has been described by Treasurer Lockyer as promoting public-public partnerships vs. the public-private partnerships for transportation projects approved earlier this year [in California], thus giving Caltrans and local transportation agencies another option to consider,” according to Nossaman LLP’s infrastructure blog.

Lockyer, whose term of office ends in November 2010, led opposition to the state’s AB680 P3 program 20 years ago, partly because he was against

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toll roads as a form of double taxation. That was when he was a legislator. “Now, as State Treasurer, he’s turning over rocks to find revenues,” says Michael Schneider, President of Infraconsult LLC, which is advising Los Angeles County on its P3 transportation program (PWF 11/09 p. 1). “The good news is that he [Lockyer] has tempered his resistance to toll roads,” says Schneider.

Gregory Henk, executive vice president of Flatiron Constructors and a veteran of California toll road development, believes that creating a statewide conduit issuer of toll revenue bonds “will be a boon to design-build.”

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## ■ Goethals Bridge To Be Availability Pay

The Port Authority of New York and New Jersey is exploring alternative financing options for a new Goethals Bridge, including the possibility of making availability payments to a private partner who would complete the Port Authority’s 30% design, and then finance, build and maintain the crossing.

Teams are forming now. An early

# Transport Developers Ranked By Invested Capital

(as of 10/1/2009)

<b>Company</b>	<b>Total Invested*</b> \$ millions	<b>Some Representative Projects</b> (Total number of concessions/leases since 1985)
<b>Ferrovial–Cintra !</b> (Spain)	\$77,560	(41) Highway 407 (Canada), Texas SH 130, Indiana Toll Road, Chicago Skyway (US), BAA, London Underground (UK), M-30 (Spain), Ionian Motorway (Greece)
<b>Macquarie</b> (Australia)	\$36,760	(33) Autoroutes Paris-Rhin-Rhone (France), M6 Toll (UK), Highway 407 (Canada), Indiana Toll Road, Chicago Skyway, SR125, Dulles Greenway (US), Daegu-Busan Expressway (South Korea)
<b>ACS</b> (Iridium Concessions) (Spain)	\$35,100	(57) Fla. I-595, Montreal A30 (Canada), Madrid Calle 30, Seville Light Rail (Spain), Central Greece Motorway, Autopista Central (Chile), Perpignan-Figueras High Speed Rail (France-Spain)
<b>Vinci-Cofiroute</b> (France)	\$32,160	(34) A5 (Germany), R1 (Slovakia), Autoroutes du Sud, Prado Sud Tunnel (France), Newport Southern Bypass (UK), Vasco da Gama Bridge (Portugal), Confederation Bridge (Canada)
<b>Hochtief</b> (Germany)	\$28,830	(22) A5 (Germany), Sydney International Airport, Eastlink (Australia), Elfsina-Patras-Tsakona Toll Road (Greece), Vienna Northeastern Bypass (Austria), Rosario-Victoria Bridge (Argentina)
<b>Abertis</b> (Spain)	\$21,220	(39) SANEF, A28, A65 (France), Ausol (Argentina), Accesos de Madrid, Henarsa (Spain), Autopista Central (Chile)
<b>Bouygues</b> (France)	\$16,300	(17) D1 (Slovakia), Gautrain Express Rail (South Africa), M5 Motorway (Hungary), A28 Rouen-Alencon (France), Busan New Port (S. Korea), New Tyne River Tunnel (UK)
<b>OHL</b> (Spain)	\$15,580	(28) Barajas Airport connector, Madrid Light Rail (Spain), Autopista Regis Bittencourt (Brazil), Autopista del los Andes (Chile), Mexico City Beltway (Mexico)
<b>Global Via</b> (FCC–Caja Madrid) (Spain)	\$15,020	(41) Transmontana Highway (Portugal), R3/R5 Motorways, Cartagena-Vera Toll Road, Malaga Metro (Spain), M50 Dublin Ring Road (Ireland), Nuevo Necaxa Toll Road (Mexico)
<b>Bilfinger Berger</b> (Germany)	\$14,840	(16) A1 (Germany), E11 (Norway), RiverCity Tunnel (Australia), Edmonton Ring Road, Kicking Horse Canyon, Golden Ears Bridge (Canada), Phu My Bridge (Vietnam)
<b>Sacyr</b> (Spain)	\$9,420	(23) Seville Light Rail, R3/R5 Motorways, Madrid-Ocaña Radial, Litoral Oeste (Portugal)
<b>Total</b>	<b>\$302.8 billion</b>	<b>(351 concessions/leases)</b>

Source: *Public Works Financing* “2009 International Major Projects Survey” database

\*Aggregate value (in nominal dollars) of all of a firm’s transportation project concessions and asset leases financed from 1985 to October 1, 2009. The “Total Invested” number is the full amount of capital invested in the public-private partnership projects that a company has been involved in as a full or partial owner.

! Includes Ferrovial’s 2006 acquisition of BAA’s 7 UK airports using \$24.3bn enterprise value, post Gatwick sale.





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entrant, industry sources say, is Kiewit/Flatiron/Parsons Transportation/Weeks Marine. Meridiam Infrastructure is also putting together a group to bid on the project.

The Port Authority is expected to make a decision on how to proceed in the next several months. The agency's 2010 budget includes \$9 million for project planning. The Port Authority's design for the new 900-ft bridge between Staten Island and New Jersey is nearly 30% complete. An environmental record of decision is expected in 2010. If the bridge is not replaced soon, a costly and temporary retrofitting will be necessary that won't solve capacity and safety issues.

In its new budget presented last month the Port Authority announced a \$5-billion reduction in its 10-year capital plan, to \$24.5 billion. A new Goethals Bridge will cost more than \$1 billion.

Jeffrey A. Parker & Associates and Halcrow have been working with authority staff to identify and narrow delivery options. Some options—such as transferring toll revenue to the private entity—were eliminated early on, said Mike Parker, Managing Director at Parker & Associates. At a December conference of the International Bridge,

Tunnel and Turnpike Association (IBTTA), Parker said all of the authority's revenue is pledged to support billions of dollars of consolidated bond debt. Other reasons for retaining toll revenue include the need to manage the authority's six tunnels and bridges between New York and New Jersey as a network.

Parker detailed one delivery option under consideration: a single contract of 30 to 40 years to design, build, finance and maintain the bridge, with the concessionaire receiving availability payments based on performance. The availability payments—at least the portion related to capital expenditures—would be subordinate to the senior bond debt. However, because the Port Authority is self-sufficient and does not receive tax revenue, the payments would not be subject to appropriations risks.

Goethals Bridge Modernization Program Director James Blackmore, also speaking at the IBTTA conference, said the Port Authority is more risk averse in the current economic climate, especially with projects that will constitute such a large portion of the agency's capital capacity. Therefore, it would like to transfer design and construction risk to the extent practical, Blackmore says.

The existing 81-year-old bridge is functionally obsolete. It has two narrow 10-foot lanes in each direction, lacks emergency shoulders, and has a bend in the approach span on the New Jersey side. The anticipated replacement would have six lanes, shoulders, a lane for bikers and walkers, and space for future transit.

Total eastbound traffic on the Goethals Bridge in 2008 was 14 million vehicles. Gross operating revenue was about \$116 million, with net income of about \$75 million. Authority facilities also include the area's major airports, marine terminals, bus terminals, and real estate including the World Trade Center.

## ■ Oakland Airport Rail DBOM Awarded

Construction on the Oakland Airport Connector could finally begin in 2010, after a joint venture of Flatiron and Parsons submitted the lowest bid for the DBOM project without private finance. The San Francisco Bay Area Rapid Transit District (BART) board voted Dec. 10 to award the team a \$361-million design-build contract. The board also



voted to award a 20-year operations and maintenance contract to team member Doppelmayr Cable Car.

Total project costs for the 3.2-mile people mover linking BART to the Oakland, Calif., International Airport are now pegged at \$492 million, about \$30 million to \$60 million less than BART estimated in April. However, the agency has only \$289 million received or committed. Another \$203 million is pending, including federal approval to use \$70 million in stimulus funds and a TIFIA loan for \$79 million. BART may borrow money if there is a cash shortfall.

Efforts to include private financing collapsed in 2008 as construction costs rose and the economy tanked. Flatiron and Parsons were part of the sole remaining team negotiating with BART in 2008 (PWF 9/08 p. 9). This time around, their team included Doppelmayr rather than Bombardier.

Despite the 7-1 board vote, the project has generated much controversy. Critics say the high project price doesn't justify replacing the existing AirBart shuttle bus between BART's Coliseum station and Oakland International Airport. But supporters also packed the Dec. 10 board meeting, arguing that the project will bring jobs to the area.

Three other teams also submitted proposals on Sept. 22, but only the Flatiron/Parsons bid came in under the total price affordability target of \$480 million. The target includes the design-build price, plus the adjusted present value of 20 years of payments for operations and maintenance and for capital asset replacement costs (CARC). Annual payments to Doppelmayr will not exceed \$4.9 million for O&M and \$768,396 for CARP, subject to escalation.

The proposal from Kiewit Pacific Company was deemed incomplete and nonresponsive. The two other responsive bids came from Walsh Construction Company and from a joint venture of Shimmick, Skanska and Herzog.

Jeffrey Parker & Associates advised BART.

## ■ High-Speed Railers Line Up

Florida began soliciting industry input into its high-speed rail plans in December, while California anticipates issuing an RFQ for private partners this spring. The two states are considered among the top contenders to receive a share of \$8 billion committed to high-speed rail as part of the economic recovery bill.

U.S. Transportation Secretary Ray LaHood is aiming to announce the grants in January. The department received applications requesting about \$57 billion.

LaHood helped fuel speculation about the possible big winners when, appearing on "The Daily Show" Dec. 15, host Jon Stewart asked him where high-speed rail projects will be located. "Probably start in the Midwest, California, the South and really sort of fix up the Northeast corridor," Hood replied.

Meanwhile, Congress appropriated an additional \$2.5 billion for high-speed rail. It's not clear yet what process and criteria will be used to award the additional funds, which were included in the fiscal year 2010 spending bill. President Obama pushed to get high-speed rail into the stimulus plan, and then included \$1 billion a year for rail for five years in his budget proposal.

"You're starting to see a real level of support here," says Art Guzzetti, vice president of policy at the American Public Transportation Association. "Now Congress is taking action on its own."

The legislation sets a deadline of Sept. 15, 2010 for the national rail plan. A preliminary plan was released in October.

A concern expressed by some large contractors is that grants from the Federal Railroad Administration will be spread out among too many applicants, producing a hodgepodge of technologies and equipment that will be impossible to meld into a national system. "That's the biggest risk we see," says Gregory Henk, senior vice president of Flatiron Constructors, Inc.

LaHood announced in December that more than 30 rail manufactures and suppliers—both foreign and domestic—have committed to establishing or expanding domestic operations, if they are chosen to help build high-speed rail. The stimulus bill included "Buy America" provisions, which require that steel, iron and manufactured goods be produced in the U.S.

In Florida, lawmakers held a special session in December to boost the odds of winning federal money. Florida already has the right-of-way and much environmental work completed for a high-speed line of about 84 miles between Orlando and Tampa. However, state officials had been warned that the lack of connecting transit systems would hurt Florida's application. The legislature responded by clearing the way to purchase 61 miles of freight track in Central Florida for a commuter rail system, and by providing additional funding for South Florida's Tri-Rail system.

The legislation also created the Florida Rail Enterprise—similar to the Florida Turnpike Enterprise—within the Florida Department of Transportation to develop and operate state-owned passenger rail systems. The Enterprise is authorized to set fares and fees, and to enter into public-private partnerships. The new entity replaces the Florida High Speed Rail Authority, which had been working to select a private partner for the Orlando-Tampa project before voters pulled the plug in 2004.

The state's application for federal stimulus funds requests \$2.6 billion for the Orlando-Tampa line. Another \$30 million is being sought for preliminary design and engineering on the Orlando-Miami leg.

An industry forum Dec. 2 attracted 500 people.

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Individual meetings were held with 14 companies or teams. The implementation plan included in the application called for a design-build contract for civil works, and a P3 for core systems, rolling stock and operations and maintenance, but that's not set in stone.

"We got a lot of comments, pro and con," says Nazih Haddad, FDOT's high-speed rail program manager. "We haven't made up our mind yet on what kind of procurement process we're going to do."

The California High Speed Rail Authority released a revised business plan that updates the estimate for the Anaheim to San Francisco line to \$42.6 billion in year-of-expenditure dollars. The estimate in 2008 dollars is \$34.9 billion, about \$1.3 billion higher than before because of changes in track alignment and structural needs. About \$10-12 billion will be sought through private funding. Voters approved \$9 billion in bonds for high-speed rail.





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The state submitted an application for more than \$4.7 billion in stimulus funds, which California plans to match with state, local or private funds.

### ■ New York SAM P3 Effort Slows

It could be years before private proposals are sought on any of the dozen or so public-private partnership projects envisioned by the New York State Asset Maximization (SAM) Commission in its report last summer. Partnerships BC took two years to advance its first project, says Samara Barend, the commission's executive director, and the proposed SAM Board could take as long.

Working with state agencies, the board would independently manage P3 project analysis and promotion efforts, says Barend. Public employee and trade unions would have considerable input in the process and be fully protected in any PPP project advanced by the SAM initiative, she says.

Little has been defined so far, including how many board members there will be or how the independent agency's startup will be funded. Barend, working from the offices of the Empire State Development Corp., says she expects to have identified members of a SAM Board in a few months. Two members would be appointed by the legislature and some number of others by the governor. Ultimately, the goal is for the board to be self-funded from PPP advisory fees.

The board's operations will combine elements of

Infrastructure Ontario, Partnerships British Columbia, Partnerships U.K., and Australia's PPP agencies, Barend says. An early role of the board will be obtaining legislative approval for design-build procurements. Public employee unions and other opponents have scuttled three previous attempts to pass a design-build law, which is a critical piece of most PPP projects.

Denis M. Hughes, president of New York State AFL-CIO, was a member of the SAM commission whose report last summer supported PPPs. Barend believes the AFL-CIO's prominent role on the future board will help win legislative approval of design-build procurements.

## WATER

### ■ American Water Revives P3 Push

American Water and RWE AG finally parted last month, opening the way for the largest U.S. water purveyor to get restarted as a public company. As part of its plan to lift its stock price to the level of its peers, American Water has begun to more aggressively pursue contract operations and concessions on the assumption that fiscal stress will revive the public-private partnerships market.

Debra Coy, of Janney, Montgomery Scott, notes that American Water's business development team has created a proprietary database of municipalities that would be well suited to partnering with American, either via asset sales, a long-term concession, or operating contracts.

Growth will be gradual, says Mark Strauss, president of American Water Enterprises, which oversees all non-regulated products and services. His business development group is fairly limited right now. "Hopefully," he says, "we'll be able to point to a more robust organization next year."

The company is pursuing concession opportunities now as a fee-for-service provider to financial partners. "That might be where we see some stirrings of growth" due to fiscal stress, says Strauss.

American Water's acquisition this month, at an



undisclosed auction price, of Environmental Management Corp. (EMC) immediately puts American Water into the industrial outsourcing business, along with Veolia Water North America, CH2M HILL OMI and Severn Trent. Half of EMC's 50 contracts are with industrial clients in the Midwest, California, the Pacific Northwest, Virginia and the Carolinas.

"It seems like a multi-billion-dollar part of the market we should pursue," says Strauss. "We're going to be very disciplined in how we do it," he says, with a focus on "repeatable" business.

The other half of EMC's business is with municipalities in or near its base in Missouri, which improves American Water's geographic reach, says Strauss. American Water has operating contracts in Sioux City, Iowa, and Evansville, Illinois.

Adam McDonough, President of Contract Operations, will oversee the integration of EMC,

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which will continue to be run by its president, John Mitchell.

Strauss points to design-build-operate as another potential growth node. "We're starting to see some indicators that the market is picking up," he says.

American Water, as operator, is teamed with Hatch Mott McDonald in pursuit of a \$160-million, 20-year DBO brackish water desalination plant in Hialeah, Fla., which goes to bid on Jan. 15. The two were also together in a redo of Tampa's seawater desal project.

Allied with Black & Veatch and McCarthy Construction, American Water also is pursuing a \$300-million, 15-year potable water plant DBO in Pima County, Ariz. The three companies previously developed the highly successful Lake Pleasant DBO water plant in Phoenix.

American Water is being selective. It declined to bid for a new DBO project in East Providence, R.I., which is negotiating terms with United Water/AECOM. American Water also took a pass on an 8-mgd DBO water plant for Woonsocket, R.I., which got responses Dec. 16 from Veolia Water North America and United Water/AECOM.

Finally, Strauss says he expects to expand the company's military privatization business, where American Water is the dominant player, with 10 large contracts. Military bases are legally required to consider private provision of services and only companies like American that have mastered the complex bidding process will prosper, he says.

## Directions

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IDEAL's team includes ACCIONA Agua; Promotora del Desarrollo de América Latina; Controladora de Operaciones de Infraestructura (an ICA subsidiary); Atlatec; Desarrollo y Construcciones Urbanas; and Green Gas Pioneer Crossing

Energy, LLC.

## ■ Veolia Adds Pipes to Woonsocket

Veolia Water North America is just four months into its \$10-million, 10-year pipeline asset management contract with Woonsocket, R.I., and has already done TV inspections on half of the city's 108-mile wastewater collection system.

Woonsocket must comply with strict new federal regulations on O&M of its sewers which carry substantial fines for overflows. Cleaning and repairs to reduce infiltration and overflow are required, along with annual reporting to confirm compliance.

Veolia has operated Woonsocket's 16-mgd wastewater treatment plant for over 10 years. It was the sole bidder on the collection system contract, which was awarded after a comparison with city operations showed substantial benefits. Veolia's bid also was benchmarked against local prices.

"Hands down, Veolia was the most able and best-qualified firm," says Paul Eisenhardt, president of Eisenhardt Associates, which advised the city, along with law firm Burns & Levenson.

As part of its bid, Veolia paid a \$1-million concession fee and bought the city's sewer maintenance vehicles for \$230,000.

## ... Latin American News

### ■ Mexico City WWTP DBO

A contract signing is set for Jan. 7 in Mexico City for a \$730-million, 25-year DBO contract between the National Water Commission (Conagua) and a consortium led by IDEAL for a 525-mgd sewage

### ■ Iridium Wins Chilean Concession

Chile is using a new bidding mechanism for its toll road PPP's that asks bidders to fix the amount of government subsidy required by the concessionaire and the length of the concession period.

Using this mechanism, Chile has awarded a design, build, finance, maintain and operate contract covering a US\$170-million, 55-km stretch of road on the Pan American Highway (Route 5) between Pargua and Puerto Montt.

Iridium's Concesiones Viarias Chile, S.A. (CVC) won the contract, with a bid calling for the least operating subsidy from the government. The concessionaire will return the highway to the state in 40 years or less.

The US\$29.25-million subsidy that CVC required compares to the US\$34 million of its nearest rival, a local team of Besalco and Belfi. Spain's Sacyr came in third, bidding US\$73.6 million. Construction will take 45 months and includes seven flyovers.

### ■ Global Via Seeks Chilean Road Refund

Spain-based Global Via Infraestructuras, S.A. was due by late December to start arbitration proceedings over its alleged overpayment last September to Mexico's state bank, Bancomext, for two toll roads it owned in Chile. The company is reportedly claiming it is owed US\$78 million, arguing that toll revenues failed to reach agreed-upon levels.

Global Via paid Bancomext over US\$1 billion for

Sociedad Concessionaire Autopista del Aconcagua, S.A. and Sociedad Concesionaria Autopista del Itata, S.A. Of that amount, US\$116 million was held for a year to cover possible adjustments in the roads' valuations. Global Via seeks to recoup some of this money through arbitration.

Bancomext acquired the toll roads from Mexico's financially troubled firm Tribasa in the 1990s. The 29-year concession for the 219-km Autopista del Aconcagua from Santiago to Los Vilos expires in 2021. The 28-year concession for the Autopista del Itata, between Concepcion and Chillan, expires in 2023.

### ■ Brazil Secures Road Refinancing

In one of Latin America's largest transportation deals, Brazil's Companhia de Concessões Rodoviárias has clinched a US\$927-million debt refinancing for its 32-km-long western section of São Paulo's Rodoanel Mario Covas ring road. Japan Bank for International Cooperation (JBIC) made its Brazilian debut to back the deal, lending US\$200 million.

JBIC's loan has a 15-year tenor at Libor plus 375 bp. The Inter-American Development Bank provided US\$100 million on the same terms, as well as guarantees for commercial loans.

Portugal's Caixa Geral de Depositos and Banco Espirito Santo, and France's Calyon bank jointly made 13-year loans amounting to US\$200 million at Libor plus 375 bps. Additionally, the Brazilian bank Bradesco has committed to lend up to Reais 750m

(US\$427 million) in local currency to cover any delays in opening adjoining sections of the beltway. The subordinated, unsecured debt is priced at 113% over the local benchmark.

### ■ Italian Investor Expands In Chile

Italy's Societa Iniziative Autostradali e Servizi, S.p.A. (SIAS) is emerging as a new international toll road player after acquiring from Atlantia interests in several Chilean concessions, including 100% of a Santiago city bypass.

Atlantia S.p.A. sold to SIAS assets that it had acquired from Citi Infrastructure Partners, which had purchased part of Itinere's portfolio earlier this year.

SIAS has purchased the whole of Soc. Concesionaria Autopista Nororiente, S.A. and 50% interests in Concesionaria Autopista Vespucio Sur, S.A. and Soc. Concesionaria Litoral Central, S.A. The companies together operate 124 km of Chilean highways under concessions expiring in 2044, 2032 and 2031 respectively. SIAS already holds 45% of a 42-km toll expressway across Santiago city and 50% of a 10-km tolled access road to the city's airport.

SIAS made the new acquisition by buying, for Euro 226 million (US\$339 million), 50% of the special purpose company Autostrade per il Cile, S.r.l. launched by Atlantia. SIAS paid Euro 28 million (US\$42 million) cash and raised the rest through loans. Atlantia and SIAS now intend to merge their Chilean holdings.

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In 2009, Cintra was selected to design, build, finance, operate and maintain segments of the North Tarrant Express and IH-635, both in Dallas, and the A1 in Poland, representing a combined investment of approximately US \$7.64bn.

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## ... European News

### ■ Spain Helps Madrid Toll Road Operators

Spain's government has allocated Euro 1.3 billion (US\$1.9 billion) for low-interest loans to operators of toll roads around Madrid who are under court orders to make retroactive payments to former owners of the right of way used to build the toll highways. Reparations by the operators of the city's radial toll roads and three other highways will total Euro 2 billion (US\$2.9 billion) as a result of a high court ruling that increased the valuation of the land by a factor of 20.

The Fomento Ministry, which drove the deal, will reportedly discuss an extension of concession terms or, alternatively, agree to toll hikes to compensate toll road operators.

The government is reportedly offering subordinated loans, with two-years' grace and repayment over

the concessions' remaining life, at 150 bp above Libor. Additionally, the government proposes making available loans to the operators of the approach toll roads to Madrid, owned by Ferrovial, ACS, Acciona, Abertis and Sacyr. Funding for these measures need to be voted into the 2010 national budget, now going through Congress.

Other beneficiaries will be Global Via's 98-km-long AP-7 between Cartagena and Vera, and OHL's 9-km M-12 serving Madrid's international airport. The AP-41 Madrid to Toledo highway, operated by Isolux Corsan with Portugal's Banco Espirito Santo, also would benefit.

### ■ Portuguese Availability Fee Troubles

Portugal's highest audit court, Tribunal de Contas, is challenging the escalating cost of availability fees for the country's current wave of highway concessions. Fees are thought to be rising above bid levels to counter increasing costs of financing caused by the banking crisis.

In its latest ruling on November 20, the tribunal questioned the legality of fee terms for the 109-km toll road in a concession held by Brisa and Italy's Atlantia, S.p.A. The tribunal previously moved against the concessionaire Auto Estrada Transmontana, an equal joint venture of Portugal's Soares da Costa and Spain's Global Vía Infraestructuras. Its December 2008 contract was the first of the current wave of highway deals.

Also in the firing line are contracts held by Auto Estrada Douro Interior, led by Mota-Engil; and Auto Estrada Alentejo and Algarve Litoral, led by Spain's Iridium Concesiones de Infraestructuras. The state's highways concessionaire, Estradas de Portugal (EP), is appealing against the tribunal's four rulings on its concession awards.

However, EP rejected best and final offers for the Auto Estrada do Centro highway system on grounds of excessive availability fees. Portugal's Mota Engil was expected to beat an offer by Iridium with Edifer. The companies rebid this month under revised contract terms.

### ■ New Tolls Stimulate Italian Highways

Autostrade per l'Italia has obtained a Euro 500-million (US\$740 million) long-term loan from the European Investment Bank (EIB) to help finance new stretches of the A-1 highway in the Apennine mountains near Florence. The loan, being handled by the

Italian state bank Cassa Depositi e Prestiti, S.p.A., comes from an economic stimulus plan covering major infrastructure, agreed upon with EIB in July.

The new loan is part of a Euro 1.9 billion (US\$2.8 billion) investment plan to improve 800 km of the A-1, running from Milan to Naples, agreed upon between Autostrade's owner Atlantia, S.p.A. and Italy's regulatory authority, Anas, S.p.A. Work on the A-1 in Florence includes replacing 105 km of highway, to a higher standard, between La Quercia and Barberini del Mugello. A Florence bypass providing a north-south link is included.

Autostrade will fund the work with a new tolling mechanism permitting annual rate increases, that went into effect in January 2009. The new tariff regime followed approval by Italy's Congress of a revised concession agreement with Autostrade, lasting to 2038. Autostrade had halted improvement work in the previous 18 months.

Atlantia says investment by its eight operating companies this year will reach Euro 1.3 billion (US\$1.9 billion), 15% up on 2008.

## ■ Dublin Promotes Two Rail Deals

Engineering designs for Dublin's estimated Euro 2-billion (US\$3 billion) Dart underground railroad were due to be settled this month. In April the Irish Republic's transportation agency (CIE) aims to start procuring a 25-year design, build, finance and maintain contract for the line.

The Dart concession will be funded mainly with availability payments. The concessionaire will operate all the infrastructure, including dealing with passengers at stations. The national railway company will provide and operate rolling stock.

The 9.2-km-long Dart project will include 7 km of large diameter twin-bored tunnels under the heart of Dublin. With five underground stations and one on the surface, the line will link with two intercity railroad terminuses plus the city's metro and light rail system.

Officials declare confidence in getting Dart off the ground, although it will be on the market at the same time as Dublin's delayed, 18-km Metro North DBFO contract. For the Metro, two groups, including one led by Macquarie and Global Via and another with OHL and Iridium, have been short-listed to submit BAFOs, probably this February.

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Metro North "will take a while to organize and hopefully by 2011 the market will have changed," says Gerard Cahillane, Head of Finance and Operation for the National Development Finance Agency (NDFA). NDFA is providing financial advice to the Railway Procurement Agency, which is managing the bidding for Metro.

Significant financing for the Metro deal from the government and the European Investment Bank (EIB) has been arranged, says Cahillane. But for the Dart job, being procured by CIE, "we haven't worked out a detailed financial structure yet," he adds. EIB "is an important element in the success of these projects."

Meanwhile, preparations are in hand for a meeting with potential Dart bidders in February, says Colm Reynolds, CIE's PPP Commercial Manager. "A high priority at this stage is to interface with the market," he says.

## ■ Scotland Takes New PPP Track

Transport Scotland (TS) has begun procuring its Borders Railway design, build, finance and operate contract, which has an estimated whole life value of £1.1 billion (US\$1.8 billion). The 59-km long railroad is among the first projects to be procured under





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pluses are reinvested in the public sector. Subordinated lenders nominate the majority of a project's special-purpose vehicle's directors. And the state appoints a Public Interest Director, one of whose tasks will be to look out for refinancing opportunities. Refinancing gains would be shared equally between the lenders being displaced by the transaction and the state.

Ernst & Young is TS's financial adviser and Dundas & Wilson is its lawyer.

Scotland's new equity-free, debt-funded Non-Profit Distribution (NPD) PPP system.

With a roughly £300-million (US\$490 million) construction cost, Borders Railway will run south-east from Edinburgh to Tweedbank, near the English border. The project includes 49 km of new track and seven stations. It is being procured through a 30-year infrastructure contract funded with availability payments.

With expressions of interest now being sought, the project will take 18-24 months to procure, says Ainslie McLaughlin, TS's Director of Major Transport Projects. Preparatory construction began along the route around a year ago.

To procure the project TS is essentially reverting to the method used some two decades ago in the U.K.'s first major PPP-type project, the Dartford River Thames crossing east of London. As a pioneering project on a monopoly river crossing, the Dartford bridge was financed on a non-recourse basis with virtually no equity, precluding later accusations of profiteering by private sectors.

Likewise, Scotland's regional government, led by the Scottish Nationalist party, aims to eschew equity returns from project procurement using its new NPD model. This is based on the private sector providing only non-recourse loans. Whether individual projects are on or off the government's balance sheet will depend on the degree of risk transfer.

Returns made by lenders are capped and any sur-

### ■ U.K. Sharpens PPP Focus

The U.K. government is to create, early in 2010, a new body, Infrastructure U.K. (IUK), to advise on infrastructure investment priorities and procurement five to 50 years ahead. A priority will be to help develop a financing approach for a multibillion high-speed railroad, initially from London to the Midlands.

IUK will be charged with working with infrastructure developers and financiers to advise, by April, on how to increase private sector investment by tapping new sources and developing novel funding models. Finance ministry officials forecast infrastructure investment needs of £200 billion (US\$324 billion) in the next decade of which "the majority" will have to be privately sourced.

IUK will merge activities of the state's PPP advisory company Partnerships U.K. with the government's Infrastructure Finance Unit, which was created in March to support closure of PPP deals that lack financing. The finance ministry's PPP policy team will also be included. IUK will be led by former Rio Tinto Chairman Paul Skinner. Partnerships U.K.'s Chief Executive Officer will be its CEO.

### ■ EU Stimulates Highway Deals

A large crop of European Union (E. U.) highway concessions is likely to come to market beginning in 2010 as fiscal stimulus packages reach fruition, according to Marcos Perez-Diaz, business development manager at Paris-based Egis Projects.

"PPPs and concessions have been taken as drivers to boost the economy," says Perez-Diaz. He estimates 50 projects have been put out to tender in the



E.U. this year while ten have closed. "We expect in 2010 and 2011 the figures to be more optimistic."

With difficult financing conditions, support from multilateral agencies, especially the European Investment Bank, will be "very important in the next few years," adds Perez-Diaz. "We expect equity will [become] true risk money and not another financing instrument that can be leveraged," he adds.

At the same time, Perez-Diaz forecasts the availability payment mechanism growing in popularity across the E.U. Availability schemes emerged in the E.U. in 2003 and are displacing conventional hard and shadow toll alternatives, he says. He expects also to see German-style shadow tolling based on freight-vehicle traffic to spread across the region.

### ■ Road Pricing Gains Popularity In Europe

Electronic road pricing is spreading in Europe as draft legislation enabling universal charging goes before parliament in the Netherlands and the French government procures a system covering trucks only. Both systems could be operational to some degree in 2011.

In its November parliamentary bill, the Dutch cabinet for the first time set out charges for the new distance-based pricing system, covering all national highways. Average car tariffs will start from Euro cents 3 (US\$0.045) per km, and rise to Euro cents 6.7 (US\$0.099) in 2017. Charges will be based on location, distance travelled and emission levels of vehicles.

Road pricing revenues will not exceed the combined value of the vehicle and fuel taxes that will be phased out, says the government. Revenues will be used to fund all manner of public transportation investments. The government forecasts road use falling by 15% with the charge, while patronage of public transportation will rise 6%.

In France, where toll roads are common, the government is procuring an electronic road-pricing system for all commercial vehicles weighing over 3.5 tonnes. The system, to be procured as a 20-year P3, will cover up to 15,000 km of non-tolled highways, affecting some 600,000 French trucks and 200,000 foreign vehicles in transit. The contract winner will earn a service fee plus performance incentives, but take no traffic risk.

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The government launched procurement of the electronic system this March and is expected to invite final submissions in August from shortlisted consortiums. Among serious contenders is a team including Egis Projects, Siemens, CDC and Sanef. Bouygues, France Telecom and Kapsch are in another group while Autostrade is also competing. An award is expected late in 2010.

### ■ Europe Creates US\$2.2bn Fund

European institutions this December launched a Euro 1.5-billion (US\$2.2 billion) infrastructure equity fund, aiming to close the initial Euro 600-million (US\$883 million) capitalization by March 3. The Luxembourg-based Marguerite Fund aims at catalyzing investment in transportation and other infrastructure systems promoted by European Union policies.

"We are seeing a [growing] potential for PPP . . . We are now looking at new instruments to . . . encourage the private sector," says the European Commission's Director for Transport Logistics, Trans-European Networks and Co-Modality, Jonathan Scheele.

The European Investment Bank (EIB), France's Caisse des Dépôts, Italy's Cassa Depositi e Prestiti, Germany's Kew, Spain's Institutur de Creditor



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Official and Poland's POKE Bank Polka each committed Euro 100 million (US\$147 million) to the fund this month. The European Commission will contribute up to Euro 80 million (US\$118 million) in the fund, with its final closing set for 2011.

Fund investors and other institutions have agreed to assemble up to Euro 5 billion (US\$7.4 billion) in long-term debt to support Marguerite Fund investments, which will be held for around 20 years. An independent team of advisors, now being recruited, is due to begin work in the first quarter of 2010.

The E.U.-sanctioned Trans-European Transport Network alone has an estimated Euro 50 billion (US\$74 billion) financing gap in the projected required investment of Euro 350 billion (US\$515 billion) in the five year period to 2013, says Scheele.

## ■ Germany Puts Up More A-Models

Germany's federal transportation ministry is now procuring two of its second set of A-Model highway upgrade concessions, aiming to receive bids and make awards in 2010. The A-8 Ulm-Augsburg and the A-9 Thüringen are being packaged differently, while the government has yet to decide how to procure the remaining six schemes it has earmarked for PPPs. In all cases, the government will continue funding the PPPs through nationwide truck tolls.

And, for the first time on a German highway PPP, one of the concessions will be funded by availability fees with the government taking all the traffic risk.

First to open for prequalification bids early this year was the A-8 scheme with an estimated construction value of Euro 280 million (US\$418 million). The contract covers upgrading 41 km of highway and operating a total of 58 km. The concession is planned to last 30 years and be financed through a form of shadow tolling explains a ministry official. Additionally, "we grant an up-front subsidy . . . of Euro 90 million (US\$135 million)."

As in the first tranche of A-Model schemes already awarded, the concessionaire's revenue will be based on the number of trucks weighing over 12 tonnes using its section of road. For the contractor a uniform toll rate will be used, while actual charges made by the separate collection company vary according to environmental emissions of the vehicles. Previously, the concessionaire also bore the risk for varying tolls depending on vehicle characteristics, explains the official.

The second, A-9 project, valued at Euro 100 million (US\$150 million), includes 41 km of upgrade work and operation of a total of 46.5 km. That concession will last 20 years and will attract a subsidy of up to 85% of the construction cost. This concession will be funded with availability fees, a first for a German road PPP.

## ■ Bidders Undaunted By Irish Cash Woes

Four bids were lodged in November for the Irish Republic's N17/18 highway PPP, the first in a new wave. The National Roads Authority (NRA) expects to receive bids for the next PPP, including the N11 Arklow-Rathnew highways, in January. Payments for both projects will be through availability fees.

Irish officials seem confident about closing these deals, despite the country's dire economic condition. Ireland's track record of successful highway deals and the relatively modest scale of the new schemes enhances their appeal to financiers, believes Gerard Cahillane, Head of Finance & Operations at the National Development Finance Agency.

NRA prequalified four groups to bid for both the N17/18 and the N11. It also selected Atlantic Roads Group, owned by Bilfinger Berger and HBOS's Uberior Infrastructure Investments (No.2) to bid for

the N11. The four other teams are:

- Eurolink N17/N18 Consortium: (Cintra, SIAC Construction)
- GASTA Roads: (Global Via, Macquarie Capital, P. Elliott & Co., Wills Bros)
- BAM Balfour Beatty: (BAM PPP/Balfour Beatty Capital)
- Direct Route (Allied Irish Bank, Strabag, John Sisk, Roadbridge, Lagan)

The N17/18 covers 57 km of highways and has an estimated value of Euro 500 million (US\$748 million). An award is scheduled for July or August. The N11 includes construction of 16 km of motorway and converting the at-grade N7 Newlands Cross junction to grade separated. An additional 33 km of existing N11 is included in the operations.

### ■ Finnish Road Leads To Fallout

Finland's second highway concession, opened to traffic early this year, is causing an acrimonious dispute between the government and concessionaire. Because of its complexity, the deal covering the roughly Euro 300-million (US\$440 million) E18 Muurla-Lohjanharju highway in Southern Finland is a "disaster," according to a consortium source.

The 51.2-km project was opened in January 2009, completing the Turku-Helsinki highway. Now the Finnish Road Administration (Finnra) and the concessionaire Tieyhtio Ykkostie Oy, are at loggerheads for undisclosed reasons. "They don't see the advantage, for example, of having the road open," says the consortium source. "They'd rather close the road to save money."

Controlled by John Laing and Skanska, Tieyhtio Ykkostie financially closed the concession in October 2005. The consortium will operate the link for 21 years after the end of construction on an availability fee basis. The two companies also lead the team oper-

ating the country's first road PPP, between Helsinki and Lahti. That 15-year contract was sealed in early 1997 and is running smoothly, says the source.

## ... More World News

### ■ Kenya Soon To Sign Nairobi Toll Road

Austria's Strabag and Israeli-based Shikun & Binui Arison Group have won a contract with a Euro 475-million (US\$695 million) construction value to finance, design, build and operate a tolled bypass to Kenya's capital, Nairobi. Four years of construction is expected to start after financial close, late next year, followed by 30 years of operations.

Strabag and SBA (formerly Housing & Construction Co. Ltd.) forecast signing a deal with the government this January, after being named preferred bidder in 2007. The project calls for the rehabilitation and upgrading of 45 km of the southern Nairobi Bypass and operation of 106 km. The World Bank's International Development Association will decide next year whether to provide a US\$160 million Partial Risk Guarantee.

Standard Bank is the joint venture's financial advisor and its Stanbic Kenya unit is a mandated lead arranger. The project aims to ease chronic congestion in a city where no major highways have been built for some 30 years. It will also remove a key bottleneck on the corridor from Mombasa port to Uganda and onwards. □

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# North Tarrant Toll Road Financiers Take Traffic Risk

Cintra and its partners reached financial close on the \$2-billion North Tarrant Express project near Fort Worth, Tex., well ahead of schedule on Dec. 17, taking advantage of a rebounding credit market and an extremely flexible repayment plan for a TIFIA loan.

The financing includes the \$650-million federal loan, \$400 million in private activity bonds, \$570 million in public funds from the state of Texas, and equity of \$427 million. NTE Mobility Partners is owned 56.7% by Cintra, 33.3% by Meridiam, and 10% by the Dallas Police and Fire Pension System. It is the first time a U.S. pension fund has participated as an equity member in a toll road project. Sponsors of the Meridiam Infrastructure Fund are Credit Agricole and AECOM Technology Corp.

Nicolas Rubio, president of Austin-based Cintra US, says the successful financing of the managed-lanes project north of Fort Worth proves that the private sector is still willing and capable of taking on traffic risk. The partners will collect all toll revenues during the 52-year concession to cover its debt service and reward equity investors. The identical team is expected to close in 2010 on a similar 52-year concession for the I-635 managed lanes project in Dallas.

"When we were awarded these two contracts almost a year ago, there were many voices in the marketplace saying these would never be financed," Rubio says. "What we're seeing today is only proving that we deliver what we promise. This is an approach that is valid, that is workable, that is taking a lot of risk out of the public [sector] and it can be done."

Neither of the other two big P3 highway projects financed in 2009 in the U.S.—the Port of Miami Tunnel and the I-595 managed lanes in Florida—included traf-

fic risk. Both use availability payments subject to state appropriations to repay developers.

Cintra's track record of successful project completion and toll road operation around the world helped get North Tarrant financed. The bonds were rated investment grade by both Fitch and Moody's, but at BBB- and Baa2 respectively. Fitch points out that the corporate unsecured guarantee provided by Cintra for its equity share would be considered weak enough to preclude an investment-grade rating for most other projects. But Cintra's global record and the significance of this project to its U.S. business were mitigating factors.

## ALL SPANISH TEAM

Ferrovial Group's Cintra has been working in the Dallas-Forth Worth region for years and has built a major presence there. Construction on North Tarrant is expected to begin in 2010 and be complete by July 2015. It will be built under a \$1.46-billion fixed-price contract with a joint venture of Ferrovial Agroman and W.W. Webber, both part of the Spain-based Ferrovial Group. A joint merger between Cintra Concesiones de Infraestructuras de Transporte and Grupo Ferrovial was completed in December. Ferrovial had already owned 67% of Cintra before the merger.

The project will double the capacity on a 13-mile stretch of I-820 and SH 121/183, including direct connector managed lane ramps to I-35W. The corridor between Fort Worth and Dallas includes some of the worst bottlenecks in the region. The work includes building two new managed lanes with variable pricing in each direction to ensure traffic flows freely, reconstructing existing free or general-purpose lanes, and extending and reconstructing frontage roads. NTE Mobility Partners will operate and maintain the entire section—including tolled and non-

tolled lanes—during the 52-year concession.

The project has a very high leverage of \$20.75 million in total debt per lane-mile, but managed lanes can support more debt than other toll projects, according to Fitch Ratings in its analysis. "From our perspective, these projects are brownfield, not greenfield," said Fitch Managing Director Michael McDermott in a conference call with reporters.

NTE Mobility Partners expects that the ratio of revenue to debt payments will rise from 1.2 times the first year of operations to 3.5 times in the third. Debt payments are highly backloaded, but will be paid off in year 40 of the concession, allowing a 12-year "tail" with additional refinancing flexibility.

Still, the project has significant risks, including during construction when general purpose lanes must remain open during the day. Rush-hour tolls will be significantly higher than on other area roads. NTE Mobility Partners expects the top peak-hour rate to be 46 cents a mile initially.

Aggressive traffic forecasts are also based on the assumption that the entire 36-mile project planned by the Texas Department of Transportation (TxDOT) will be completed by 2025, according to Moody's rating report. NTE Mobility Partners has an additional contract with TxDOT to complete master planning for the rest of the project.

The final financing uses less debt and about \$57 million more equity than in the financing plan submitted to TxDOT in 2008. But Rubio says the end result is still in line with what was originally anticipated. The team was conditionally awarded the contract in January, but had until mid-2010 to complete the project financing. The details:

**Bonds:** Rubio says the team considered bonds, bank debt, and a combination of the two. "It wasn't clear until the very last minute which was most effective," he says.

The North Tarrant project is only the second U.S. toll road concession to use private activity bonds, and the first without credit enhancement. Bonds totaling \$589 million were sold in June 2008 for the Capital Beltway in Virginia, but they received A-range ratings because they were backed by a letter of credit from DEPFA Bank.

The North Tarrant bonds mature on either Dec. 31, 2031, or Dec. 31, 2039, and have an average interest rate of 6.98%. The issue was oversubscribed 2.4 times, and was underwritten by a bank syndicate headed by JPMorgan and Merrill Lynch.

Stephen Howard, head of Infrastructure Project Finance at Barclays Capital, says the tax-exempt PAB market for projects with BBB category ratings has significantly improved since summer. In December, investors

also oversubscribed an issue of \$511 million in tax-exempt bonds—also with a BBB- rating—for a new stadium in Brooklyn.

When the Florida I-595 project closed in March, the PAB market for a project of that size was very uncertain, Howard says. The Port of Miami Tunnel, though also initially targeted for PABs, ended up being better suited for bank debt because of the relatively short term of the financing.

Congress also helped boost interest in the North Tarrant bonds, by exempting private activity bonds sold in 2009 and 2010 from the alternative minimum tax (AMT) which adds 50 to 100 basis points to the cost of funds.

**TIFIA loan:** Interest and principal payments on the \$650-million TIFIA loan can be deferred for approximately the first 10 years—during project construction and the first five years of operation. The first repayments of principal will not be required until the 21st year of operations. The loan matures 35 years from substantial project completion. Without

TIFIA, the project "would not have been done," Rubio says.

The TIFIA loan for North Tarrant is the second largest to close so far, after \$917 million for the Central Texas Turnpike in 2002. TIFIA loans may exceed the amount of senior debt if both the senior debt and the TIFIA debt are rated at investment grade. The TIFIA loan received a rating of BBB- from Fitch and Baa3 from Moody's, which was one step below Moody's rating for the bonds.

NTE Mobility Partners was not required to pay for part of the federal cost to subsidize the loan because the subsidy was less than the amount reserved for the project.

**Equity:** The equity from the three partners will not be contributed upfront, but on a pro-rata basis along with bonds and then the TIFIA loan. Contingent equity will replenish a \$60-million reserve fund if any withdrawals are necessary because of cost overruns.

*by Lori Sharn, PWF Washington*

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## Build-To-Budget Produces Design-Build Winners

A few states are starting to use a twist on design-build to get the most bang for their buck. Instead of competing on cost, all bidders are given the same fixed price and asked how much of the project can be completed with the available dollars.

**Texas** pushed the concept even further with the North Tarrant Express, the first toll road concession to be procured this way in the U.S. The entire project is 36 miles, but the state could commit only \$600 million. A team led by Cintra said it could tackle the first 13.25 miles of the project, using private financing and \$570 million in state money. The only other bidder would have built far fewer lanes miles. The project reached financial close Dec. 17.

The concept is described differently around the country—"fixed price, best design" in Utah, "design-build-to-budget," in the District of Columbia and even the "Missouri Model" because of the state's success on rebuilding I-64 in St. Louis. The Federal Highway Administration includes "fixed budget-best value" in its procurement lexicon.

"We're turning the traditional design-build model on its head, with great results," says Pete Rahn, director of the Missouri Department of Transportation (MoDOT). "It really shows what the private sector can do if you ask the right question."

**Missouri** had just \$535 million budgeted for its I-64 project, even though it was estimated to cost much more. The project included rebuilding 10 miles of highway and 13 interchanges, and adding a lane in each direction. An RFP was issued for a design-build budget of \$420 million.

A joint venture of Granite Construction and two St. Louis-area contractors—Fred Weber and Millstone-Bangert—won with a proposal to complete almost the entire project. The team said it could finish the project in just three years with an innovative plan to shut down the western half of the highway first, and then the eastern half. The project was completed on Dec. 7, three weeks ahead of schedule and \$11 million under the state's total budget.

Rahn says a key to the success was not prescribing too many details, and giving the design-build team the freedom to use any specification adopted by any state transportation department in the U.S.

Lead designer Parsons Transportation Group worked as a subcontractor to the construction joint venture. Project man-

ager Jason Estes of Granite says Parsons shared in early completion incentives. But what really sped up the project was MoDOT granting "design engineer of record" status to the team.

"We could design things right at the table," without waiting for official state approval, Estes says. "That was huge."

MoDOT was so happy with its first build-to-budget venture, that it used the same model to procure the \$245-million KcICON project in Kanas City. A new bridge over the Missouri River and widening of Interstate 29-35 will be finished in 2011. A joint venture of Clarkson, Massman and Kiewit construction companies won the bid with its design for the bridge and larger scope. Parsons and Transystems are the designers.

**In Utah**, a Record of Decision was approved in 2008 for improving 43 miles of I-15 south of Salt Lake City, through Orem and Provo. Using traditional contracting methods, the Utah Department of Transportation figured it had only enough money for 14.8 miles and 8 interchanges under the \$1.725-billion program budget established by the legislature.

But because of the fixed-price, best-design competition and current low construction costs, the state is getting about 60-70% more of the project completed, says I-15 Core spokesperson Heather Barnum. A team led by Fluor Corp. was awarded a contract of about \$1.1 billion Dec. 9 to widen 24 miles of I-15 and rebuild or modify 10 interchanges and 55 bridges. The joint venture includes Ames, Ralph L. Wadsworth and Wadsworth Brothers construction companies. Lead designer is Fluor-HDR Global Design Consultants.

**In Washington, D.C.**, a joint venture of Skanska/Facchina was selected in April to replace two obsolete bridges over the Anacostia River at 11th Street. Under the \$260-million design-build-to-budget contract, the team will complete 90% of the scope included in the preferred alternative, which was estimated to cost up to \$459 million.

**In Louisiana**, the state used \$100 million in surplus fund to begin widening a section of Interstate 12 from four lanes to six lanes east of Baton Rouge. Bidders were instructed to begin at the O'Neal Lane interchange and proceed east as far as the money would allow. Prime contractor James Construction Group won the contract in December 2008.

*by Lori Sharn, PWF Washington*



# Transportation Policy Review

by Robert W. Poole, Jr.

## Avoiding Future “Big Dig” Fiascos

A recent *Wall Street Journal* article, “Seattle Girds for Tunnel Fight,” recounted new political opposition to the proposed \$4.2-billion traffic tunnel intended to replace the seismically damaged Alaskan Way Viaduct. The accompanying photo showed a protestor holding a sign that says “No Big Dig.”

The specter of Boston’s infamous “Big Dig” tunnel project, which began at an estimated cost of \$3.2 billion and ended up costing nearly \$15 billion, will haunt proposed transportation mega-projects in coming decades—for good reason. As Danish academic Bent Flyvbjerg documented in his book, *Megaprojects and Risk*, nearly 90% of transportation megaprojects in a global database of 258 highway and rail projects suffered cost overruns, and many experienced serious traffic shortfalls.

That’s the bad news. But the good news is that we have a pretty good idea why such problems occur—and what can be done to minimize them. The problem is that the traditional public-works procurement process creates incentives that lead to fiascos like the Big Dig. But the long-term concession form of public-private partnership changes those incentives, because major risks are transferred to the concession company and its investors. This risk transfer, in my view, is one of the most important—but least-

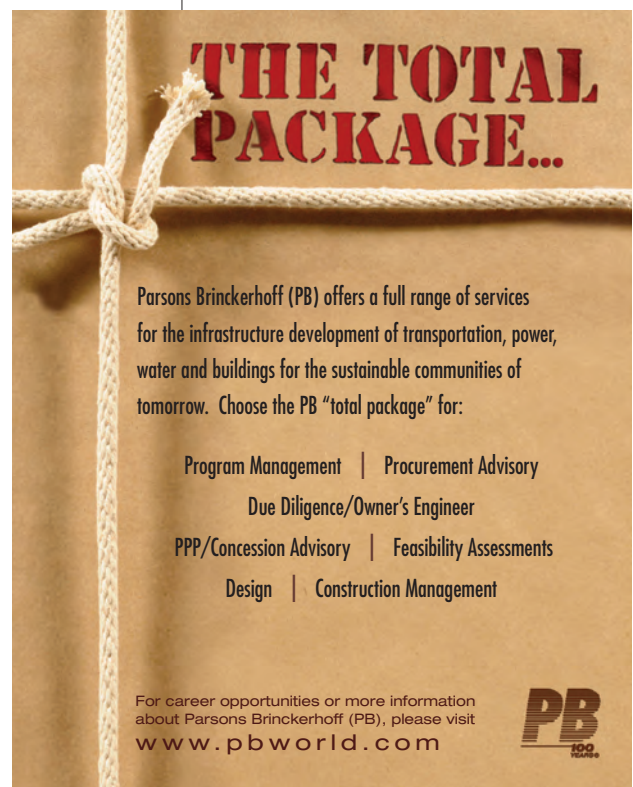
understood—advantages of long-term concessions.

You can see the perverse incentives at work if you read the history of the Big Dig in Alan Altshuler and David Luberoff’s excellent book, *Mega-Projects*. They chronicle the “project creep” that occurred, as politicians and interest groups figured out how to extract funding for “mitigations” from an ever-expanding project budget. One example: Mayor Ray Flynn demanded that the Big Dig fund a citywide rat control program, on the argument that underground construction would displace millions of rats to other neighborhoods. Some assessments of mitigations put the total as up to one-third of the ultimate \$14.8-billion cost.

Under a long-term concession, while interest groups retain the same motivation, the concession company with its own funds at stake, and limited by what it can raise in the capital markets, has a powerful incentive to “just say no” to open-ended

demands for mitigation, on pain of the project not getting built.

That same incentive motivates them to value-engineer the project, so as to deliver more bang for the buck. A good example of this is the Beltway HOT Lanes project, now under construction on I-495 in northern Virginia. The Virginia DOT’s original concept was a \$3-billion project to add two HOV lanes in each direction on the most congested portion of the Beltway. It went nowhere, for two reasons: huge opposition to the large number of property takings it would have



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required and the lack of \$3 billion of highway funds to build it.

Engineers at Fluor came up with a value-engineered concept to add two HOT lanes in each direction at a cost of just under \$1 billion. By means of design exceptions and waivers, they were able to reduce the project's footprint enough to decrease the property takes by over 95%, which eliminated most of the opposition to the project. Final negotiations eventually led to a project costing \$1.9 billion, with the private sector covering \$1.5 billion based on projected toll revenues and the state kicking in the remaining funds, to cover additions it required.

In traditional highway contracting, even if using design-build, the design-builder's responsibility ends when the project is turned over to the state DOT. Consequently, when cost control does get emphasized, the price of cutting costs in the initial construction may turn out to be significantly higher maintenance costs over the life of the project. But that's not the contractor's problem! By contrast, under a long-term PPP concession, the concession company that is responsible for design and construction must also operate and maintain the project for 30, 40, or 50 years. So they have powerful incentives to minimize the life-cycle cost, rather than the initial cost.

Although Flyvbjerg's large megaprojects database does not distinguish between projects procured conventionally and those done as long-term concessions, Flyvbjerg himself has written about the connection between procurement method and risk minimization. He recommends a

true public-private partnership approach, in which the private sector team puts its own capital at risk, as the best way to minimize cost overruns, late completion, and grossly over-estimated traffic. Such an arrangement "allocates risk to parties who have an incentive to reduce the negative risks." By contrast, the conventional approach "is likely to increase the total risks and costs of a project."

Peter Samuel of *Tollroadsnews.com* has contrasted two urban tunnel megaprojects to illustrate these points. Australia's Melbourne CityLink was built in the same time frame as the Big Dig, in a similar urban environment. It involved long stretches of elevated construction as well as significant tunneling in difficult soil conditions and, like the Big Dig, had to avoid interference with numerous underground utilities and rail transit lines. CityLink, done as a long-term concession, was built in one-third the time and at one-third the cost of the Big Dig (\$27 million per lane-mile vs. \$91 million per lane-mile).

One acid test of the concession model is whether risk stays transferred in the event of major problems—such as grossly over-estimated traffic forecasts. Two extreme cases in recent years are the Camino Columbia toll road in Texas and the Cross-City Tunnel in Sydney. In both cases, traffic and toll revenues were a small fraction of forecasts, leading to both projects going bankrupt. In neither case was there a taxpayer bailout.

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Instead, both toll projects continued operating under new management, and the investors took a beating. A less-drastic example is the Dulles Greenway in Virginia, where the initial investors lost money due to low initial traffic, but the project turned out great by its second decade.

So the bottom line goes something like this: Fixing America's increasingly inadequate highway infrastructure will require numerous billion-dollar scale projects. Such megaprojects are inherently at risk of cost overruns, late completion, and traffic shortfalls. But those risks can be transferred from taxpayers to investors, via well-designed long-term concession agreements. Therefore, explaining this risk-transfer mechanism to elected officials, state DOTs, and the media is a crucially important task.

**Robert Poole, Jr.** is the director of transportation studies at the Reason Foundation.

## AIRPORTS

**Santiago airport prequals:** Chile's Public Works ministry will begin to prequalify bidders in 2010 for a concession to expand Santiago's international airport at a cost of US\$1 billion. Bidding is due to start in 2011 in time to replace the current concessionaire. A new light rail to Santiago will be tendered as a separate concession.

**SNC's French airports:** France's Lower Normandy regional government has awarded a six-year contract to SNC-Lavalin to operate its Cherbourg-Maupertus Airport. SNC now operates five small airports in France and one on Malta.

## BUILDINGS

**BAM sells schools:** The Netherlands-based contractor BAM has sold the remaining 50% of its four U.K.-school PPP contracts to Dutch Infrastructure Fund (DIF) for Euro 9 million (US\$13 million). DIF acquired the first 50% when it created a joint venture with BAM two years ago. BAM says it will use the proceeds for new PPP bids.

**\$1bn Chile hospitals:** Two new hospitals are planned for PPP procurement in Quilicura and Colina, and three others are up for expansion in Salvador, Sotero del Río, and Felix Bulnes. The projects call for US\$1 billion of private investment in total.

**First Swiss prison:** Switzerland's first PPP contract, for prison facilities, reached financial close this month. A joint venture of BAM Deutschland and locally-based Marti have the 25-year deal in Burgdorf, Berne canton. UBS and NIBC Bank are mandated lead arrangers and six local banks also are providing loans.

**EIB in Swedish hospitals:** The European Investment Bank is consider-

ing long-term loans of up to Euro 700 million (US\$1 billion) towards the cost of Stockholm's estimated Euro 2.2-billion (US\$3.5 billion) Karolinska Solna University Hospital, being procured by the city as a PPP. The city has received bids from prequalified bidders, including locally based Skanska, and plans to make an award in the next few months.

**U. K. schools financed:** The English municipalities of Salford and Wigan and the Learning Partnership consortium this month financially closed a £68-million (US\$110 million), 25-year PPP contract to redevelop and modernize school buildings. Laing O'Rourke and Hochtief Concessions each own 40% of the consortium. The state's Building Schools for the Future Investments LLP has 10% and the two municipalities have 5% each.

## ROADS

**Abu Dhabi road bids:** Bids for Abu Dhabi's estimated US\$2.5-billion, 327-km-long Mafrq-Ghweifat DBFO highway were due for submission on December 24, according to an official of one of the five consortiums that were prequalified in February by the Department of Transport.

**Argentine toll road wages:** In mid-December Argentina approved a 25% toll increase for light vehicles by Autopistas del Sol (Ausol), which defaulted on a \$10-million bond interest payment this November because of insufficient revenues. Ausol operates the 95-km Avenida Panamericana northern access to Buenos Aires and the city's General Paz beltway. Ausol reports operational costs up 500% since 2001, mainly on wages. The government has set a March deadline to restructure its debt.

**One bid for Italian toll road:** A joint venture, including Italy's Societa

Iniziativa Autostradali e Servizi (SIAS) (42%) and Impregilo (32%), was the sole bidder for 33% of Concessione Autostradali Piemontese, which has a 45-year concession to design, build, finance, operate and maintain the 45-km Pedemontana Piemontese toll road, calling for Euro 600 million (US\$900 million) investment. Local firms complete the joint venture.

**Portugal SCUT costs:** Portugal's shadow toll road (SCUTS) will cost the government Euro 648 million (US\$950 million) in fees to operators in 2009. The government in 2006 decided to convert SCUTS to toll roads as part of a drive to reduce budget deficits.

**BRISA balks:** Brisa, Autoestradas de Portugal says it will not bid for six toll roads to be offered by the state's Estradas de Portugal in 2010. Brisa will also not bid again for the Euro 1.3-million (US\$1.9 billion) Litoral Centro toll road deal, because of the high level of construction involved. Brisa says it will instead focus on development and maintenance of its local network.

## COMPANY NEWS

**Hochtief IPO setback:** Germany's Hochtief pulled the planned IPO of its concession business at the last minute on December 3, blaming poor trading conditions in the wake of the Dubai financial crisis. Hochtief says its inability to secure up to Euro 1 billion (US\$1.5 billion) from the sale of a minority stake in Hochtief Concessions will not hurt group growth.

**Latin American PPP funds:** The Inter-American Development Bank and the European Investment Bank have agreed to extend beyond 2009 a deal (continued on p. 26) to co-finance private sector transport and energy projects in Latin America.



# U.S. & Canadian Transportation Projects Scorecard

<b>Contract Amount</b> in nominal \$ (\$ millions)	<b>Project Name</b>	<b>Owner</b>	<b>Private Risk</b>	<b>Notice to Proceed</b>	<b>Sponsors (DB component)</b>
3,850	<b>Indiana Toll Road, IN</b>	Indiana Finance Authority	75-yr lease	6/06	Cintra Concessions/Macquarie
2,600	<b>ETR 407, Toronto, Ont.</b>	Ontario Ministry of Trans.	99-yr lease	5/99	Cintra Concessions/Macquarie
2,460	<b>Port Mann Bridge, BC</b>	BC. Ministry of Transportation	DB	2/09	Kiewit/Flatiron
1,998	<b>I-495 HOT Lanes, VA</b>	Virginia DOT	DBFO	7/08	Transurban/Fluor (\$1.4bn Fluor/Lane)
1,830	<b>Chicago Skyway, IL</b>	City of Chicago	99-yr lease	1/05	Cintra Concessions/Macquarie
1,814	<b>I-595 Managed Lanes, FL</b>	Florida DOT	DBFO	2/09	ACS Infracore (\$1.2bn Dragados/EarthTech)
1,674	<b>Hudson-Bergen Lt. Rail, NJ</b>	NJ Transit	DB/Equip+O&M	10/96	Wash. Group/Itochu (\$1.15bn Perini/Slaterry)
1,650	<b>Canada Line, Vancouver, BC</b>	Gr. Vancouver Transit Auth.	DBFO	8/05	SNC Lavalin/Serco (\$1.2bn SNC Lavalin)
1,430	<b>A-30, Montreal, Quebec</b>	Ministry of Transport	DBFO	9/08	Acciona/Iridium (Dragados/SICE/Arup)
1,376	<b>I-15 Reconstruction, UT</b>	Utah DOT	DB	3/97	Kiewit/Granite/Washington Group
1,369	<b>SH 130 Seg. 1-4, TX</b>	Texas DOT	DB	7/02	Fluor/Balfour Beatty/DMJM + Harris
1,358	<b>SH 130 Segments 5-6, TX</b>	Texas DOT	DBFO	3/08	Cintra/Zachy
1,340	<b>Edmonton Orbital (NW), AB</b>	Alberta Transportation	DBFO	7/08	Bilfinger Berger (Flatiron/Parsons/Graham)
1,186	<b>T-REX Road/Rail Exp., CO</b>	Colo. DOT/RTD	DB	5/01	Kiewit/Parsons Trans. Group
980	<b>Jamaica-JFK Airtrain, NY</b>	Port Auth. NY/NJ	DB/Equip+O&M	9/99	Skanska/Bombardier (\$980m Slaterry/Perini)
914	<b>Port of Miami Tunnel, FL</b>	Florida DOT	DBFO	10/09	Bouygues (\$607m Bouygues/Jacobs)
814	<b>Golden Ears Bridge, BC</b>	TransLink/Partnerships BC	DBFO	3/06	Bilfinger BOT (\$746m Bilfinger/CH2M Hill)
803	<b>Foothill Eastern Toll Road, CA</b>	Trans. Corridor Agencies	DB	6/95	Flatiron/Wayss & Freitag/Sukut/Obayashi
790	<b>San Joaquin Hills Toll Rd., CA</b>	Trans. Corridor Agencies	DB	9/91	Kiewit/Granite
773	<b>SR 125 So. + Connectors, CA</b>	San Diego Expressway L.P.	DBFO	5/03	Macquarie (\$653m Washington/Fluor)
730	<b>Confederation Bridge, PEI</b>	Public Works Canada	DBOM	10/93	Vinci/BPC Marine/Ballast Nedam/SCI
712	<b>Alameda Corridor, CA</b>	Alameda Corridor Trans. Auth.	DB	11/98	Tutor-Saliba/O&G Indus/Pars. Grp + HNTB
689	<b>JFK Terminal 4, NY</b>	Port Auth. NY/NJ	DBFO	5/97	Schiphol/LCOR (\$689m Fluor/Morse Diesel)
645	<b>Foothill South Toll Road, CA</b>	Trans. Corridor Agencies	DB	11/98	Flatiron/HBG/Sukut/Fluor Daniel
615	<b>Tacoma Narrows Bridge, WA</b>	Washington State DOT	DB	11/02	Bechtel/Kiewit
611	<b>Pocahontas Parkway Lease, VA</b>	Virginia DOT	99-yr lease	6/06	Transurban (\$45m Fluor/WGI)
603	<b>Northwest Parkway Lease, CO</b>	Northwest Parkway Authority	99-yr lease	5/07	BRISA/CCR
600	<b>Eastside Light Rail, CA</b>	Los Angeles County MTA	DB	7/04	Washington Group/Obayashi/Shimmick
597	<b>Sea-to-Sky Highway, BC</b>	BC Ministry of Transportation	DBFO	9/05	Macquarie (\$354m Kiewit/Miller/Capilano)
555	<b>Northeast Stoney Trail, AB</b>	Province of Alberta	DBFO	2/07	Bilfinger (\$345m Flatiron/Graham/Parsons)
541	<b>Cooper River Bridge, SC</b>	SC DOT	DB	7/01	Flatiron/Skanska + Parsons Brinckerhoff
530	<b>BART SF. Airport Ext., CA</b>	Bay Area Rapid Transit Dist.	DB	5/98	Tutor-Saliba/Slaterry + HNTB
508	<b>Trenton River Light Rail, NJ</b>	NJ Transit	DB/Equip+O&M	6/99	Bechtel/Conti/Foster/Bombardier
500	<b>Trans Canada Highway, NB</b>	NB Trans Ministry	DBOM	11/98	Dragados-FCC/Vinci/Miller Paving
464	<b>Intercounty Connector, MD</b>	Maryland DOT	DB	6/07	Granite/Corman/GA & FC Waggoner
431	<b>I-75, FL</b>	Florida DOT	DBF	6/07	Anderson Columbia/Ajax Paving
420	<b>I-64 St. Louis, MO</b>	Missouri DOT	DB	12/06	Granite Construction
414	<b>Highway 161, TX</b>	No. Texas Tollway Auth.	DB	8/09	Fluor/Balfour Beatty + AECOM
395	<b>Edmonton Orbital SE, AB</b>	Alberta Min. of Trans.	DBOM	1/05	Macquarie/PCL/LaFarge
390	<b>SR 22 Improvements, CA</b>	Orange Cty CA Trans. Auth.	DB	9/04	Granite/C.C. Myers/Steve P. Rados Inc.
386	<b>Conway Bypass Highway, SC</b>	SC DOT	DB	3/98	Fluor Daniel
385	<b>Route 3 North, MA</b>	Mass. Highways	DBF/Maint.	8/00	Modern Continental/Roy Jorgenson
350	<b>Dulles Greenway Toll Road, VA</b>	TRIP II	DBFO	9/93	TRIP II (\$150m Brown & Root)
348	<b>John James Audubon Br., LA</b>	LA DOTD	DB	5/06	Flatiron/Granite/Parsons
343	<b>Las Vegas Monorail, NV</b>	L.V. Monorail LLC	DB/Equip+O&M	10/00	Bombardier/Granite
328	<b>281 North Toll, TX</b>	Alamo Reg. Mobility Auth.	DB	5/08	Fluor/Balfour Beatty
324	<b>E-470 Beltway, Seg. 2&amp;3, CO</b>	E-470 Public Hwy Auth.	DB	8/95	Washington Group Intl/Fluor Daniel

# U.S. & Canadian Transportation Projects Scorecard

<b>Contract Amount</b> in nominal \$ (\$ millions)	<b>Project Name</b>	<b>Owner</b>	<b>Private Risk</b>	<b>Notice to Proceed</b>	<b>Sponsor Constructors (DB component)</b>
295	<b>US 550 (was SR 44), NM</b>	New Mex. SH&TD	D/CM/Warranty	9/98	Koch Materials (\$295m CH2M Hill/Flatiron)
291	<b>Hiawatha Light Rail, MN</b>	Minn. DOT	DB	9/00	Granite/C.S. McCrossan
267	<b>Gold Line Light Rail, CA</b>	LA-Pasadena Blue Line Const.	DB	4/00	Kiewit/Washington Group
243	<b>I-10 Bridges Escambia Bay, FL</b>	Florida DOT	DB	4/05	Tidewater Skanska
238	<b>TH 212, MN</b>	Minnesota DOT	DB	8/05	Fluor/Edward Kraemer/Ames
236	<b>Rt. 288, VA</b>	Virginia DOT	DB/Warranty	12/00	Koch/APAC/CH2M Hill
234	<b>St. Anthony Falls Bridge, MN</b>	MinnDOT	DB	11/07	Flatiron/Manson + FIGG
233	<b>E-470 Beltway, Seg. 4, CO</b>	E-470 Public Hwy Auth.	DB	1/00	Kiewit/Washington Group
232	<b>Palm Beach-Ft. Laud. Rail, FL</b>	Tri-County Commuter Rail Auth	DB	8/01	Herzog/Granite/Washington Group
232	<b>US 52 Reconstruction, MN</b>	Minnesota DOT	DB	2/03	Fluor/Edward Kraemer/Ames
226	<b>Carolina Bays Pkwy, SC</b>	SC DOT	DB	11/99	Flatiron/Tidewater
323	<b>E-470 Seg. 1, CO</b>	E-470 Public Hwy Auth.	DB	7/89	Fluor/Morrison Knudsen
238	<b>I-15 Bridge Replacements, UT</b>	Utah DOT	DB	1/06	Granite/Ralph L. Wadsworth Const.
220	<b>Blue Line Extension, DC</b>	WMATA	DB	4/02	Lane/Granite/Slaterry Skanska
211	<b>I-95 Widening</b>	Florida DOT	DBF	12/07	Community Asphalt
200	<b>Kicking Horse Canyon, BC</b>	BC Min. of Trans.	DBFO	2005	Bilfinger (\$114m Flatiron/Parsons)
198	<b>Rt. 28 Corridor, VA</b>	VDOT	DB	9/02	Clark Const./Shirley Contracting Corp.
192	<b>US 17 Washington Bypass, NC</b>	NC DOT	DB	2/06	Flatiron/United Contractors
191	<b>Southern Connector, SC</b>	Connector 2000 Assn.	DB/F	2/98	Interwest (\$na Thrift Bros.)
191	<b>Atl. City-Brigantine Tunnel, NJ</b>	NJ DOT	DB/F	10/97	Mirage Resorts (\$191m Yonkers/Granite)
184	<b>U.S. 60 Upgrade, AZ</b>	Arizona DOT	DB	5/01	Granite/Sundt
180	<b>Northwest Parkway, CO</b>	NWP Public Highway Auth.	DB	6/01	Washington Group/Kiewit Western
178	<b>US 183, Austin, TX</b>	Central Tex. Mobility Auth.	DB	12/04	Granite/J.D. Abrams + URS
177	<b>Palmetto Exp. Widening FL</b>	Florida DOT	DBF	8/08	Condotte-De Moya j.v.
171	<b>Reno ReTRAC, NV</b>	City of Reno	DB	7/02	Granite/Parsons Trans. Group
148	<b>US Route 1, Key West, FL</b>	Florida DOT	DB	11/04	Granite w/Jacobs
136	<b>I-494 Reconstruction, MN</b>	Minnesota DOT	DB	8/04	Granite/C.S. McCrossan
132	<b>U.S. 64 Knightdale Bypass, NC</b>	North Carolina DOT	DB	6/02	Flatiron/Lane Const. Corp.
130	<b>CPTC 91 Express Lanes, ,CA</b>	CalTrans	DBFO	7/93	Level 3/Cofiroute/Granite (sold 1/03)
130	<b>U.S. 20, OR</b>	Oregon DOT	DB	7/05	Granite/TY Lin International
129	<b>U.S. 70, NM</b>	New Mex. SH&TD	DB	7/02	Granite/Sundt/James Hamilton+URS
125	<b>Portland Airport Max Rail, OR</b>	Tri Met	DB	10/98	Bechtel
121	<b>95 Express Lanes, FL</b>	Florida DOT	DBF	1/08	FCC/MCM
120	<b>Okanagan Bridge, BC</b>	BC Dept. of Transport	DBFO	5/07	SNC Lavalin
111	<b>US-1 Improvements, FL</b>	Florida DOT	DBF	11/07	Community Asphalt
102	<b>I-4 Over St. John's River, FL</b>	Florida DOT	DB	1/01	Granite/PCL Civil Constructors
86	<b>I-17 Thomas to Peoria, AZ</b>	Arizona DOT	DB	1/99	Granite/Sundt
85	<b>Camino Colombia Bypass, TX</b>	Texas DOT	DBFO	6/99	Granite + Carter & Burgess
83	<b>Highway 104 Cobequid Pass</b>	Nova Scotia MOT	DBOM	5/96	CHIC: Aecom/AMEC/Dufferin
82	<b>Hathaway Bridge, FL</b>	Florida DOT	DB/Warranty	6/00	Granite
81	<b>Sawgrass Expwy Widen, FL</b>	Fla. Turnpike Enterprise	DB	4/05	APAC/Parsons Trans. Group
57	<b>Anton Anderson Tunnel, AK</b>	Alaska DOT	DB	9/98	Kiewit + Hatch Mott MacDonald
56	<b>Belt Parkway, NY</b>	NYC DOT	DB	7/02	Granite Halmar + Gannett Fleming
54	<b>Carolina Bays, ph. 2, SC</b>	South Carolina DOT	DB	5/03	APAC + Wilbur Smith Assoc.
53	<b>New River Bridge, FL</b>	Tri-County Commuter Rail	DB	2/03	Washington Group

## GLOBAL NEWS BRIEFS

DECEMBER 2009

**Mexico PPP fund:** Mexico's state bank Banobras will provide 20% of a new Mexican infrastructure fund being created by Australia's Macquarie Group Ltd, which is due to be listed on the local stock exchange with an initial value of pesos 10 billion (US\$776 million). Macquarie is also negotiating with other local and foreign investors.

**Mexico PPP law:** Mexico's government has introduced PPP legislation that will extend the maximum concession for projects to 50 years from 10 years now. The law will also give private investors access to state bank credit for PPP deals.

**Santander fund shut:** Spain's Banco Santander will suspend its Santander Infrastructure Fund II, which handles about Euro 1.5 billion (US\$2.2 billion) of assets. Instead, the bank will handle infrastructure investment directly. The fund's last acquisition was the water firm Aguas Nuevas, S.A. for some US\$300 million. The fund owns holdings include the Santiago toll roads Autopista Central and Rutas del Pacífico, operated by Abertis.

**Transurban takeover:** The Australian government's Future Fund this month gave its support to a takeover bid of Australia's major toll road operator by

the Canada Pension Plan Investment Board and by the Ontario Teachers' Pension Plan. Transurban continues to reject the early November offer of A\$5.25 (US\$4.80) per stapled security as not enough.

**Veolia U. K. credit downgraded:** Veolia's U.K. water supply utility has had its long-term corporate credit and senior unsecured debt put on CreditWatch with negative implications by Standard & Poor's. Veolia Water Central Ltd. secured a 15-year, £201.3-million (US\$331 million) loan from its French parent, increasing leverage to 61.0% from 41.4% this March.



### ■ Canadian P3 Market Overview 2010

There could be a few more Canadian P3 projects in 2010 than in 2009, as several jurisdictions join the provinces, which have already established their presence in the field.

Any increase in business will come with new entrants because most of the existing players are predicting a steady deal flow.

Gains may come if the federal government moves on a variety of projects in procurement now. These include a new RCMP headquarters, a defense intelligence building, a district heating project, and a large office building in the capital.

**Infrastructure Ontario (IO)** will probably start seven to nine projects in 2010, says IO president and CEO David Livingstone. That's the limit of

what the market can bear, and consistent with 2009, he says.

There could be a handful of transit and transport projects that go ahead next year, including extending the Windsor-Essex Highway that leads to the bridge between Windsor, Ont., and Detroit, Mich. (PWF 11/09, p. 2).

And a new international crossing is likely there, he says, although the timing is unclear. Both IO and the federal government would like to run that project.

Toronto has won the 2015 Pan Am Games, which will see IO being assigned infrastructure work. The corporation that will manage the games has yet to be established, so 2011 looks like the earliest date for a deal.



IO has been trying to convince municipalities to use its services for water/wastewater projects—the “Holy Grail” for the agency, Livingstone says—and 2010 might be the breakthrough year.

Several large hospital projects are also likely.

**Partnerships BC** is expecting to launch three to five projects in 2010, CEO Larry Blain told the Canadian Council for Public-Private Partnerships meeting in Toronto in December.

The agency is moving into new fields, looking at applying its model to a remand center, a power project, university buildings and the Victoria wastewater project.

The Victoria project has been slow in coming, but the deal, which could involve multiple plants, could be worth more than Cdn \$1 billion. The business case and a recommendation for a P3 or traditional procurement are expected in early 2010.

PBC is awaiting approval on two hospitals, expected by fall, and the Sierra Yoyo Desan northern resource road, originally built as a P3, is going to be expanded.

Three projects are in the market now, the Northern Cancer Centre in Prince George, a hospital expansion in Surrey, near Vancouver, and the South Fraser perimeter road.

But a major transit project, the 11-km Evergreen LRT near Vancouver, appears to be stalled. While the provincial and federal governments have committed about Cdn \$760 million to the Cdn \$1.4-billion line, the Vancouver transit agency is broke and can't find the Cdn \$400 million it promised.

**New Brunswick** has just received technical submissions for the Route 1 Gateway project, which will see a developer/operator design and build 55 km of new, four-lane highway on Route 1.

The successful proponent will also maintain and operate 235 km of Route 1 under a 30-year agreement starting in June 2011.

However, the province opted for a traditional project for a new Cdn \$53-million courthouse in Saint John because that was cheaper than the proposals submitted by short-listed proponents.

**In Alberta**, where P3 projects have been focused on schools and orbital roads around the two largest cities, the government is looking at health, water and wastewater plans, but nothing has been approved by the Treasury Board, said Neill McQuay, assistant deputy minister of strategic capital planning.

A ring-road deal and a package of 10 public schools are in process, and further deals are expected. Construction on the Calgary and Edmonton ring roads are to be completed around 2015, he told the Canadian Council meeting.

**In Quebec**, where P3 has come in for sharp critiques, the five-year plan envisions Cdn \$5 billion to \$6 billion with P3 potential, in roads and hospitals, said Guy Choiniere, vice-president of projects at PPP Quebec.

Five projects are under construction, two large and troubled hospital projects are working through the process (see related story) and two 300-cell jails could be announced as P3s.

Two maintenance centers for Montreal's commuter train network will be DBF projects, with one coming in 2010. The decision to build a Quebec City hospital as a P3 is being reviewed.

### ■ **Durham Courthouse A P3 Success**

Major foundation problems and a four-week strike did not set back the P3 development team building the Durham Consolidated Courthouse project in southern Ontario, which completed the Cdn \$334-million (npv) project on time Nov. 24. Total elapsed time for the Cdn \$200-million design-build effort was 29 months.

The project was privately financed with availability payments from the province over 30 years. Financing charges of Cdn \$70,000 a day drove the design-build effort, says John McKenrick senior vice president, project delivery, Infrastructure Ontario. “If you argue for a week, that's a quarter of a million dollars, so let's just solve the problem” and argue about who pays later.

An early example of design-build-finance-maintain (DBFM) in Ontario, the 446,000-sq-ft structure houses 33 courtrooms and is designed to meet LEED Silver energy conservation standards and sustainability goals. It will consolidate judicial operations from eight different locations.

"You can build high-quality, energy efficient buildings using a DBFM approach," says McKenrick. "We're happy and ready to start paying."

Three teams were shortlisted for the project in early 2007. Access Justice Durham was selected and got a notice to proceed on June 28, 2007. The team comprises PCL Constructors Canada Inc., Johnson Controls, and WZMH Architects.

ABN AMRO originally led the project financing but backed out in 2008. Babcock & Brown Infrastructure Group stepped in and out quickly and was replaced by Meridiam Infrastructure last year. After a series of takeovers and bailouts, ABN AMRO's completion guarantee is now held by the U.K. government.

The change in financial leadership had no effect on the project, says McKenrick. There are so many protections in the contract, he says, "that it was barely a blip on our screen."

To meet the tight schedule, the design time on one of the most technologically advanced buildings in Ontario was compressed from two years to six months. Despite that, only five change orders were recorded and only one was significant. "Normally, you get 400-500 change orders in a project like this," says McKenrick.

The big change order was recorded at the start of the project after it was discovered that the foundation area contained a deep hole filled with sludge. The hole was quickly pumped out and carefully backfilled with 38,000 cu m of new dirt, and the foundation was changed from a slab on grade to a structural slab. Total cost of the extra work was Cdn \$6 million.

Don Gilliland, construction manager for PCL, lists a number of changes that would make things go smoother on future P3 projects:

- Give the design-build team access to local authorities in order to resolve issues directly.
- Allow more flexibility in design—"Give the design-build team the opportunity to use its expertise."
- Define end-user requirements more precisely.

- Control user-group input.
- Standardize project agreements to cut legal costs and reduce delays.

## ■ PPP Quebec Hospitals Hit

The Quebec government's troubled P3 program is taking hit after hit, with the financing plans for two big hospital projects changing and the province's auditor general saying that favorable analyses of the projects were flawed. The two hospitals are projected to cost about Cdn \$3 billion together.

The auditor reported on two of the few projects in the province's P3 pipeline, the University of Montreal hospital (Centre hospitalier de l'Université de Montreal, or CHUM) and the McGill University Health Center (MUHC).

The CHUM bidders are Access Sante CHUM, with Babcock & Brown and Acciona, and Group Innisfree-AXOR-OHL-Dalkia.

The McGill bidders are Groupe immobilier santé McGill, headed by SNC-Lavalin, and Partenariat CUSM, headed by Spanish construction and concession company Obrascon Huarte Lain (OHL).

"In our opinion, the analyses of the value-added produced by [the government agency] PPP Quebec do not make it possible to support the conclusion that their completion using the PPP delivery method is preferable to carrying out the work under the conventional method," the auditor's report said.

It was released just after PPP Quebec had to raise Cdn \$15 million to pay the maximum compensation offered to the loser of the two bidders for the CHUM project.

And then, shortly after the auditor weighed in, the government confirmed that the financing of both projects was proving difficult, and that Quebec was changing the payment plan over 30 years.

Despite the auditor's report, the projects are expected to continue as P3s; it would cost too much time and money to change the process at this stage, PPP Quebec agency spokesman Hugo Delaney said.

The higher compensation to be paid to the CHUM loser was necessary because of the costly planning process. "This is about keeping people involved," he said.

The CHUM project was requiring multiple meetings, longer timelines than expected, and was more complex than thought.

The process has cost each bidder at least Cdn \$10 million. The higher payment by PPP Quebec includes Cdn \$200,000 a week for each week when there are bidder workshops to a maximum of 75 weeks, which would amount to Cdn \$15 million.

The McGill project was not covered by the higher compensation fees because its bidding is much closer to completion. A winner was supposed to have been announced in early December, but that has been put off to early 2010.

The auditor general said PPP Quebec used assumptions in comparing a P3 with a traditional project that "are inappropriate and greatly accentuate the variance in favor of the PPP method."

For example, PPP Quebec assumed the government would not maintain the buildings, creating a massive Cdn \$9.4-billion renewal deficit over 30 years. But if the projects were done as P3s, it was assumed the government would make payments to the contractors to maintain the buildings.

The study also used a higher-than-usual discount rate, which also favors the P3s. The alleged savings using P3 were based on uncertain assumptions, the auditor said.

The two hospital projects have been inching ahead since 2006. Problems with the projects and PPP Quebec's role led to a replacement of the agency's head earlier this year. It is also getting a new mandate and will soon be renamed Infrastructure Quebec.

It has agreed with the auditor to tighten up its P3 analyses.

## ■ Calgary Ring Road Comparisons

When two sections of Calgary's ring road opened at the same time in November, it invited a comparison between traditional and P3 procurement. The 23-km Stoney Trail NW was built traditionally; the adjacent 21-km Stoney Trail NE was a P3. But the comparison is difficult, because the two deals include different elements.

The traditionally procured section cost Cdn \$460 million, and took four years to build. The P3, built

by the Stoney Trail Group headed by Bilfinger Berger, cost Cdn \$650 million in 2007 dollars, and was finished in two years. But the P3 price includes 30 years of maintenance.

Further clouding the issue, the cost and build time for the traditional section increased because of changes in the design after construction started.

"The scope of the project changed quite a bit" because three interchanges were added in the middle of the project, says Trent Bancarz, spokesman for Alberta Transportation.

The department is generally enthusiastic about P3s for big projects like the Calgary and Edmonton ring roads. P3s lock in a price, which was a big issue when Alberta construction costs were jumping 25% a year during the oilsands building boom.

The big projects also have room for innovation and flexibility in design and construction. "That's where we're really seeing the advantage," Bancarz says. However, about 95% of the department's work is done traditionally.

Stoney Trail NW might have been a P3, except the province hadn't invented its own brand of the system when the road was launched, and getting work started was key at the time.

A request for P3 proposals on the SE portion of the Calgary road, 150 km-lanes, will be issued in January.

After that section is completed, only one section will remain. But the southwest section is owned by the Tsuu T'ina First Nation, which in June voted against letting the road be built through their reserve.

The Edmonton road will be 85% complete when the Northwest Connect group, headed by Bilfinger, finishes the 21-kilometer section in 2011. □



# Infrastructure Ontario Is The Deal Flow Leader

Detailed planning and strong political backing have been the key factors in the success of Infrastructure Ontario (IO), the leading provincial P3 agency in Canada, says its president and CEO David Livingstone. Also, Ontario is Canada's richest and most populous province, which has helped IO to quickly ramp up deal flow since it began operations in 2005.

When the province set out a five-year infrastructure plan almost five years ago it committed to levels of spending, to specific projects it wanted done and to using what the province calls alternative financing and procurement (AFP), mainly public-private partnerships based on an availability payment model.

The program was "the policy driver" that has enabled IO to undertake Cdn \$15 billion in AFP projects since late 2005, expanding the original list of 37 government assignments to more than 50 today, Livingstone says. Six of those, including hospitals and jails, are largely finished.

## COMING OF AGE

IO proved its mettle in 2008. "We came of age last year," says Livingstone.

"We got a lot of stuff closed in a very difficult market."

IO managed to close seven projects during the worst of the financial crisis last year. Developers get a lot of the credit, Livingstone says, for bringing innovation and tenacity to their project financings. IO's strong political backing also helped by

allowing it to come up with large substantial completion payments—up to 50% of cost—which helped to reduce financing costs.

Value for money was not sacrificed in 2008. "This was not about closing deals," Livingstone says. "It's about value for money. We are absolutely confident there is value for money in every [AFP] deal we do."

Livingstone also credits IO's process improvements, certainty and extensive consultations with the P3 industry for getting projects moving. The culture within IO—it sees itself as a private company performing a public service—is also a factor.

Initially, IO ran into problems with other government departments. "It was a struggle," says Livingstone, but IO won them over by treating them like clients. "Our job is to serve you"—IO actually bases its compensation for senior staff on customer satisfaction.

Rupesh Amin, vice president for infrastructure development at Carillion Canada Inc., worked at IO during its early stages. He says IO's success is largely due to its being part of the provincial government which allows it to interface directly with municipalities, cities and other infrastructure agencies. IO has a strong mandate and the support of top politicians, he says, which allows it to get past intergovernmental blockages.

And deal flow, the result of the policy commitment, has encouraged international builders and

bankers to take the Canadian market seriously. British infrastructure company Balfour Beatty Capital is just the latest, opening a Toronto office in November.

Canada is "as strong as anybody in the world" in terms of deal flow, says Larry Blain, head of the British Columbia P3 agency, Partnerships BC (PBC). Data from the Canadian Council for Public-Private Partnerships show 40 P3 projects under construction in five provinces and one territory.

Blain is optimistic about the future of P3s in Canada. For one thing, the federal government is gearing up its P3 efforts in 2010, and Blain thinks that will help coordinate provincial programs. "Having the federal government involved in P3 development is going to unify the market in Canada," he says.

## STANDARDIZING DOCUMENTS

IO has become the single largest Canadian agency in commissioning P3 projects. It has worked on setting up P3 systems to cut the time it takes to procure projects, and reduce costs and uncertainty. Bidders like predictability, and IO has worked to standardize procedures, documents and even specifications for hospital rooms.

Standardizing documents has cut legal costs at the agency to a quarter of the original level, Livingstone says, so now lawyers are just asked to consider the unique aspects of every deal, rather than redrafting each new contract.

Likewise, IO aims to go from RFP to financial close in under a year, down from 16 months in its first project. It's now closing deals more quickly than the British P3 authority, often seen as the pace setter for the international industry, he says.

As a detailed example, shortly after it was set up, IO realized that there were no standardized plans for hospital rooms or halls in the province. With 32 medical projects on the agenda, the agency set out to produce output specifications, talking to hospitals, doctors, nurses and other relevant parties, he said.

Now bidders know what's required when considering a hospital project.

The standardization push by agencies like IO and PBC, advanced through twice-yearly meeting of the provincial P3 agencies, has led to a lot of common elements between provinces. But Livingstone thinks a national market is unlikely, given the substantial differences that remain.

To name two: PBC sets a price, and then the project scope has to fit within that budget; IO does the opposite, determining what is needed, and then awarding the contract to the lowest bidder which meets the requirements.

Moreover, PBC acts as an advisor. In a hospital deal, the British Columbia health authorities have a budget, PBC advises, and the government approves the deal.

In Ontario, the government assigns the budget to IO, and the agency can close a deal without any other approvals.

## MILESTONE PAYMENTS

IO uses substantial completion payments to catalyze its availability payment deals. Some provinces also use milestone payments, but Livingstone doesn't like them. The payments "just reduce the skin in the game," and IO wants bidders focusing on delivering projects early and without problems during the risky construction period.

"We fundamentally do not believe that milestone payments provide value for money," he says. More generally, he says, "I sometimes wonder whether the things we've done to help projects have prevented lending rates [for IO projects] from coming down as fast as they might have."

IO has made payments to developers on completion of a useable part of a project, say one wing of a two-wing hospital, or a drivable section of a new road, even if the whole project wasn't finished.

## LONG-TERM CAPITAL SHORTAGE

Despite all its successes, however, IO has had some problems. Chief among them is the shortage of 30-year capital in the market. There is lots of equity, and short lending is no problem, Livingstone says.

But for long lenders, "we're looking for some new players." It's hard to understand why the Canadian pension funds haven't filled that gap, but they have lots of options, Livingstone notes. P3 lending is not well understood, and there is no secondary market. In contrast, long government bonds are well understood and there is a secondary market, making them attractive to pension funds.

But he expects the funds will eventually move in.

## 407 TOLL FIGHT

The province's fight with the toll highway 407, with Ontario starting litigation denying the highway's right to set tolls, was seen by some observers as undermining IO's ability to do deals.

Why would any company trust an agency whose backer was willing to go to court to undermine a key part of a previous contract?

But Livingstone doesn't see it that way. He says he believed he could have convinced the market that the province's attack on the toll regulation agreement in a privatization deal was different from a P3 deal.

IO was distanced from the 407 fight, he says. Even so, when Livingstone was asked to negotiate a settlement with Cintra, he did. The government agreed the road could raise tolls without seeking permission, and 407 agreed to make certain investments and spend Cdn \$40 million on a rewards program for frequent users.

*by Dan Westell, PWF Canada*

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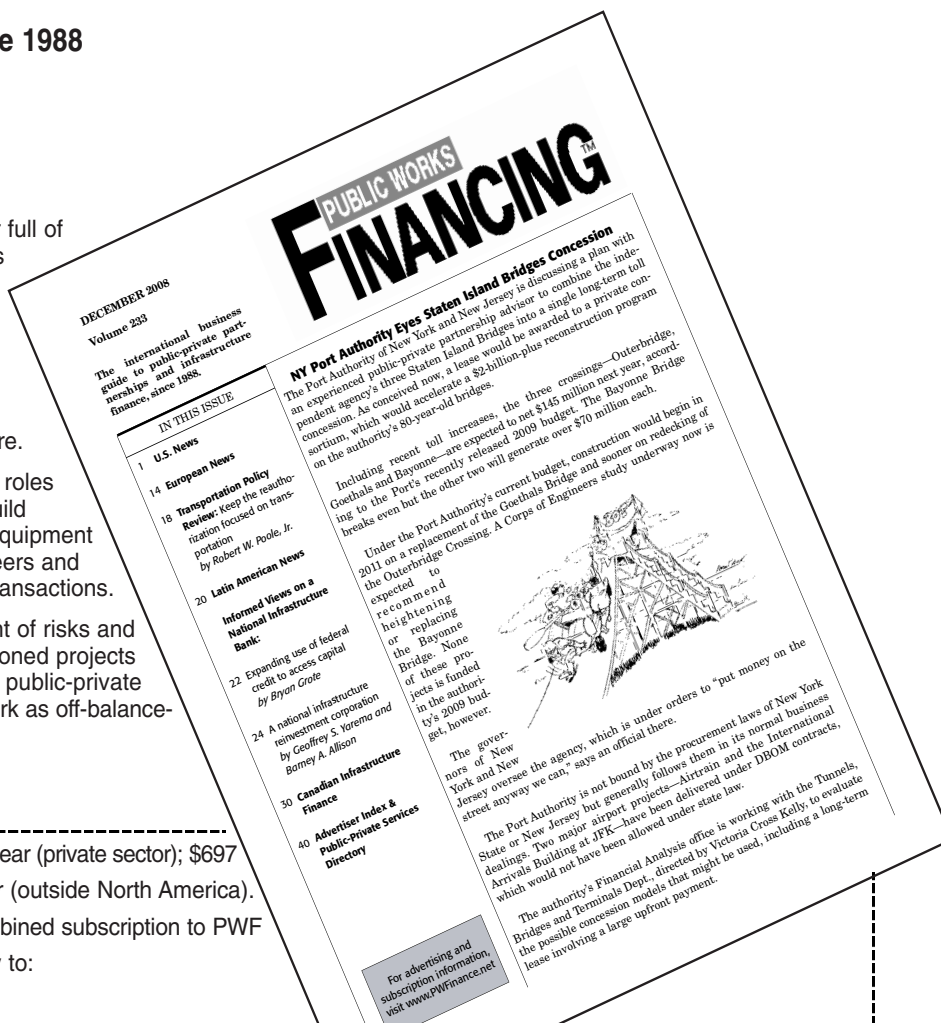
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- Texas DOT \$2.68B LBJ-635 Expansion – Toll Concession – Commercial Close, September 2009
- North Carolina Turnpike Authority \$640M Mid-Currituck Bridge Project – Pre-Development Agreement – Executed, April 2009
- Florida DOT \$1.8B I-595 Managed Lanes Project – Availability Payment Contract – Financial Close, March 2009

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